

Digital Preservation Day at the Library: A How-To Guide

Presenters: Lizzy Baus and Sara Ring



Library Technology Conference

March 14-15, 2018

Why Digital Preservation Day?

- Estimated 1.3 billion items at risk in U.S. libraries, archives, and museums*
- All these things can harm our physical collections
 - Light
 - Pollution
 - Heat
 - Moisture
- You can educate your community about preservation!

*IMLS Heritage Health Index report, 2005
<https://www.ims.gov/publications/heritage-health-index-full-report>

Speaking of Preservation...



**Celebrate
Preservation
Week 2018**

April 22-28, 2018

Agenda

- Planning a Preservation Day Event
- Mock Event
 - How we have done it
 - Digital image basics
 - Digital preservation 101



Planning a Preservation Day Event

Hosting Events – Purpose

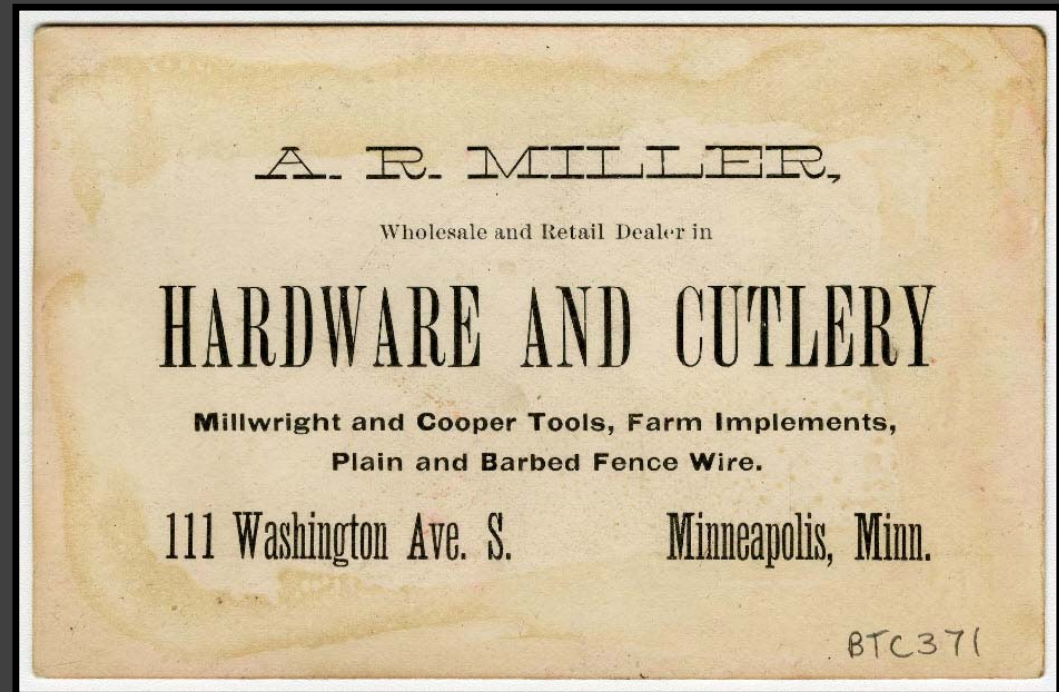
- Community engagement/relationship building
- Public education opportunity
- All-ages programming (but especially for adults)
- Materials collection – maybe



Seven Corners Branch of Minneapolis Public Library, 1920
<https://reflections.mndigital.org/catalog/mps:1427>

Hosting Events – Hardware

- Scanners
- Laptops
- Lightbox
- Camera
- Flash drives
- Rulers
- Pencils
- Paper forms



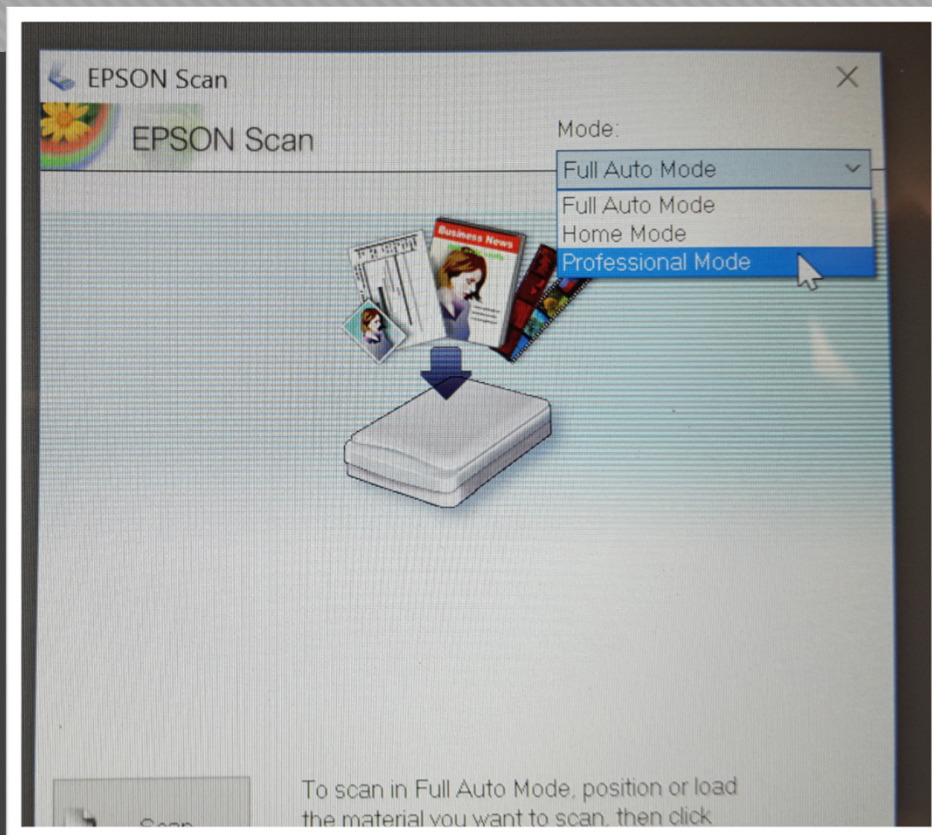
A.R. Miller, Hardware and Cutlery, Minneapolis, Minnesota, 1880-1910
<https://reflections.mndigital.org/catalog/mpls:23665>

Hosting Events – Our Equipment

- Epson Perfection V850 ProScanner
- Dell Latitude Laptop
- Pelican Case w/foam and lid accessory organizer; case features handles and wheels
- Portable Light Box for 3D items, including lights



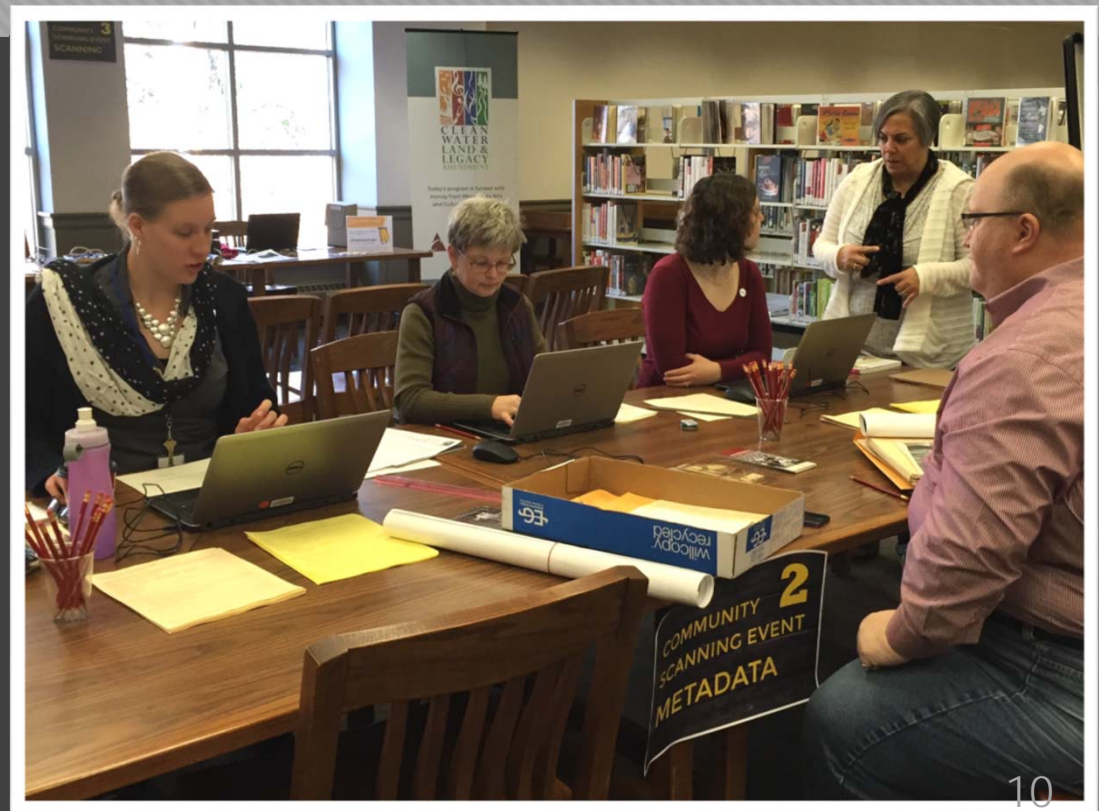
Hosting Events – Software



- **Photoshop** or other photo editing program
- If you're collecting metadata
 - **Excel, Google Sheets, Word** or another text editor

Hosting Events – Metadata

- Collection techniques/ best practices (e.g. Mariah Carver Smith, not Grandma)
- Focus on the stories – this will help tease out information
- Occasions might recall locations



Hosting Events – Collaborations

- Libraries
- Historical societies
- Local museums
- Genealogy/ancestry groups



Deutsche Tisch, Northfield, Minnesota, 1892
<https://reflections.mndigital.org/catalog/ccn:240>

Hosting Events – Education Topics

- Family history – very popular
- Local history
- Genealogical research
- Preservation – physical and/or digital

Bringing Local History to Life

An Anoka County Library and Anoka County Historical Society collaboration



The Great Depression

Saturday, April 9,
1:00 p.m. and 3:00 p.m.
Northtown Library
711 County Rd. 10 NE, Blaine
phone 763-717-3267

Historians from Anoka County Historical Society take a look at how the hardships of the Great Depression (1930-1940) affected people in the Midwest and across the United States. From the stock market crash which left many in ruin, to record unemployment, to extreme weather that led to crop failures and the Dust Bowl; hear stories of the faces behind the crisis and the struggle to survive. With a focus on Anoka County, Minnesota, these stories highlight the people and the programs that got Americans through the tough years of the Great Depression.

Life in Suburbia

Saturday, April 30,
1:00 p.m. and 3:00 p.m.
Crooked Lake Library

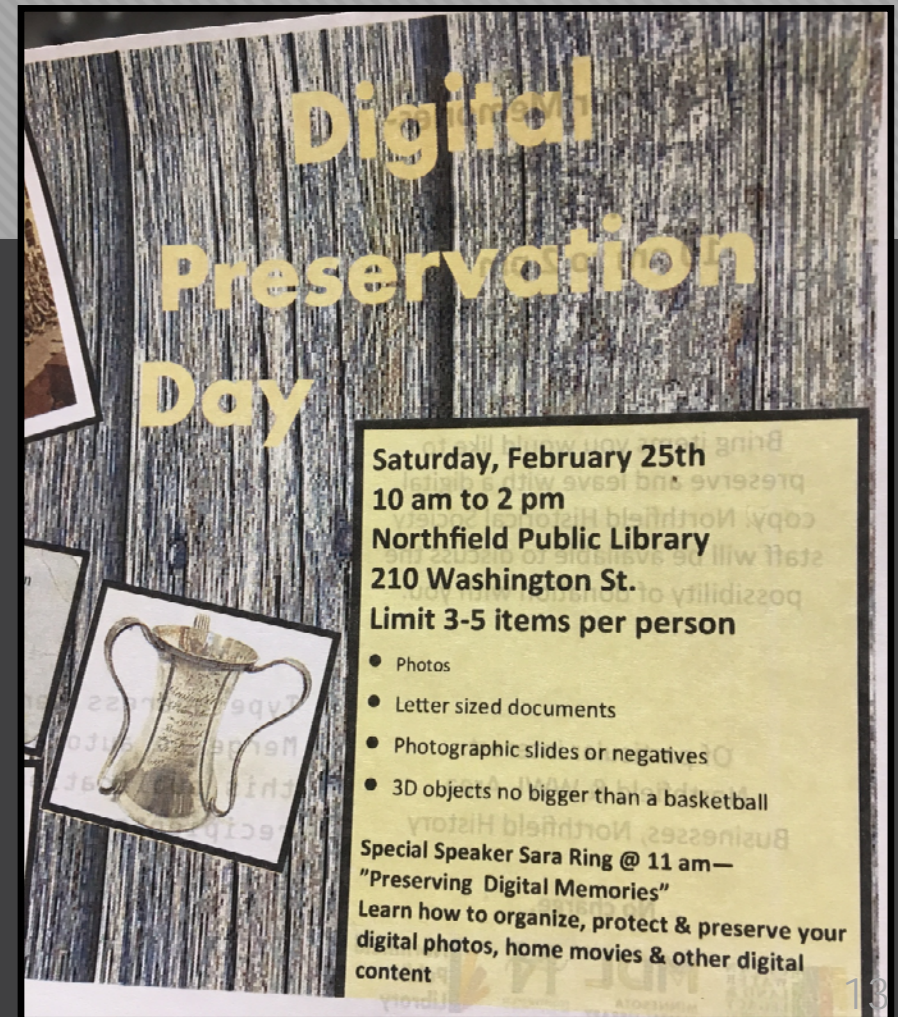
11440 Crooked Lake Blvd., Coon Rapids
phone 763-576-5972

Anoka County was largely a rural county with a population of just over 35,000 people in 1950. By 1960, there were more than 85,000 people calling it home — a population increase of 143% in a single decade! Almost overnight, the face of Anoka County changed from one of farms to sprawling suburbs. Join historians from Anoka County Historical Society as they explore early suburbanization in Anoka County and how it shaped the communities we live in today.



Hosting Events – Marketing

- Who is your audience?
- Flyers
- Local Newspaper
- Local genealogy groups
- Social media



Mock Event: Check In Station

Mock Event: Check In Station

- Explain the process to patron
- Ask for details
 - Contact information
 - Brief titles of images/docs
 - If they wish to donate
 - Assign code to use at scanning station for file naming
- Answer questions

Anoka County Community Scanning Event, March 12, 2016

Name: _____

Address: _____ City: Andover State: MN Zip: 55304

Phone: _____ Email: _____

Would you be willing to have us contact you if we have follow-up questions? Y / N

Description or Informal Title	Photo/Slide/ Negative/Document	Scanned
1. <u>Ward bro photograph</u> -001	P	✓
2. <u>Ward sister photographs</u> -002	P	✓
3. <u>Daniel Joseph Ward 1</u> -03	P	✓
4. <u>Rebecca Sharon Ward</u> -04	P	✓
5. <u>Daniel Joseph Ward 2</u> -05	P	✓
6. <u>Warren Ward</u> -06	P	✓
7. <u>Warren & Donna Ward Wedding</u> -07	P	✓
8. <u>William Henry Ward family</u> -08	P	✓
9. <u>Daniel Joseph Ward family</u> -09	P	✓
10. <u>Sharon family</u> -10	P	✓

Are you willing to share digital copies of these items with the Anoka County Historical Society and the Minnesota Digital Library? ☒ Y ☐ N (circle one)

For staff use.

Contributor Code: 2016-1683

15

Check in Station

Role play:

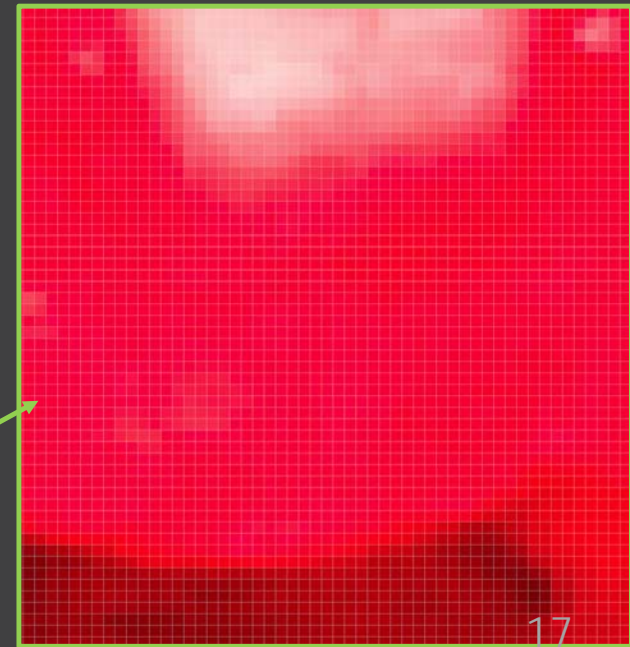
Greta has come to our event with some pictures to scan. Lizzy welcomes her and gets her checked in.



Digital Image Basics

Pixels – the building blocks

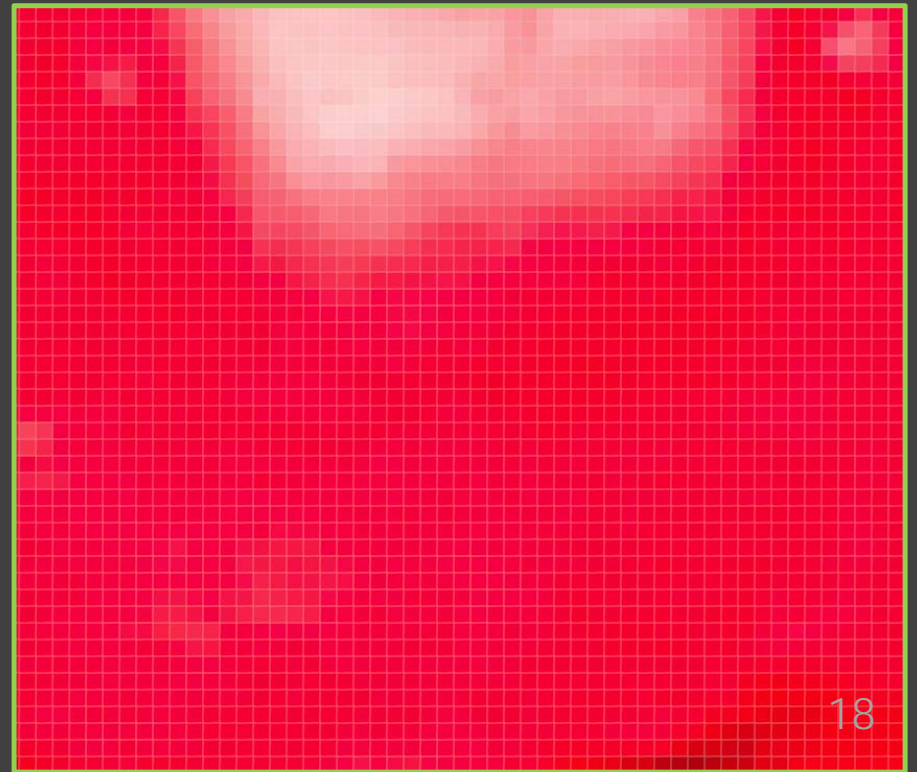
- Picture element = pixel
- Smallest unit of data in a digital image
- Each pixel has exactly one tonal value (black, white, gray, or color)



Digital Image Basics

Resolution – how many blocks

- The level of spatial data captured
- A measure of “density”
 - 300 dots per inch
 - 3000 x 4200 pixels
- DPI – dots per inch
- PPI – pixels per inch
- Pixel Array – # of pixels across both dimensions



Digital Image Basics

Bit Depth – how many colors

- The number of possible shades of gray or color
- Most common bit depths:
 - 1-bit black and white
 - 8-bit grayscale 256 shades of gray
 - 8-bit color 256 shades of color
 - 24-bit RGB* ~ 17 million colors, three 8-bit channels



* RGB – Red, Green, Blue is the color model system used in electronic systems and photography to create colors by combining different amounts of red, green, and blue 19

Digital Image Basics

Common Image File Formats

- TIFF – Tagged Image File Format
- JPEG – Joint Photographic Experts Group
- JPEG 2000 – like TIFF but smaller file size
- GIF – Graphics Interchange Format
- PNG – Portable Network Graphics
- RAW – uncompressed, unprocessed

Standards/Best Practices

- Our suggestions: MDL Best Practices for Digitization (<https://mndigital.org/standards-best-practices/best-practices-digitization>)
 - Resolution: whatever gives you **3000-5000 pixels** on longest side
 - Bit depth: b&w – **1 bit**
 grayscale – **8 bit**
 color – **24 bit**
 - File format: **TIFF**
 - Compression: **none or lossless**
- Specific material considerations
- Other resources
 - **Federal Agencies Digital Guidelines Initiative**
 - **Library of Congress Digital Preservation**

Sample resolutions based on size for Images:

2" x 2" – 1500 dpi
3" x 5" – 600 dpi
4" x 7" – 450 dpi
8" x 10" – 300 dpi

Mock Event: Metadata Station

Mock Event: Metadata Station

What Happens Here?

- We ask for descriptive information (collection metadata)
- We measure the original



Options for Collecting Metadata

Metadata Form

- Attendees can fill this one out by hand if they wish

[Location/Organization(s)] Community Scanning Event – [Date]	
GENERAL INFORMATION:	
Your Name:	
Date of Creation (Date of photograph or the date an item was published):	
Title:	
Creator (author, photographer, etc.):	
Dimensions (in cm):	
FORMAT INFORMATION: What is the item's physical format?	
IMAGE – PHOTOGRAPH (Circle one): Photograph - Black and White Photograph - Color Studio Portrait (photograph take at a professional studio) Negative – black and white Negative – color Postcard 35 mm slide Other: _____	TEXT – DOCUMENT (Circle one): Letter Certificate Booklet/Pamphlet Recipe Greeting card Diploma Permit/License Other: _____
Was this image professionally produced? (Example: Studio portrait or commercial postcard) Circle One: Yes or No	Was this document published? Circle One: Yes or No
Name of Publisher/Photography Studio:	Name of Publisher:
Place of Publication/Photography Studio:	Place of Publication:
SUBJECT INFORMATION: What is depicted, shown or discussed?	
People:	People:
Businesses, Buildings, Organizations:	Businesses, Buildings, Organizations:
City:	City:
County:	County:
State:	State:
Natural Features:	Natural Features:
Historic Event:	Historic Event:
WRITE A BRIEF DESCRIPTION:	

Options for Collecting Metadata

Metadata Spreadsheet

- Staff can fill this out and give a copy to the attendee/patron

Anoka County Community Scanning Events										
Metadata										
April 9, 2016										
	Contributor Name	Item Code	Date of Creation / Publication	Title	Creator / Author	Dimensions (cm)	Text or Image?	Format	Publisher Name	Place of Publication
1	Bernadette	2016.1691.01	1947	Grandfather in rocking chair on porch		5.5 x 9	Black and White Photograph			
2	Bernadette	2016.1691.02	1930-1940	Evelyn		9 X 6	Black and White Photograph			
3	Bernadette	2016.1691.03	1950	Richard, Northeast Minneapolis.		9 x 6	Black and White Photograph			
4	Bernadette	2016.1691.04	1942	Evelyn holding birthday cake		6 x 9	Black and White Photograph			
5	Bernadette	2016.1691.05	1940	Evelyn and cousins in front of car		11 x 7	Black and White Photograph			
6	Bernadette	2016.1691.06		Evelyn standing in front of bushes		7 x 11.5	Black and White Photograph			
7	Bernadette	2016.1691.07	1945-1950	Evelyn holding niece.		6.5 x 11.5	Black and White Photograph			

Options for Collecting Metadata

Metadata Spreadsheet, other half

People	Businesses, Buildings, Organizations	Location Address/City	Location County	Location State	Geographic Features	Historic Events	Description
		Minneapolis	Hennepin County	Minnesota			Great grandfather of Bernadette.
		Kimball	Hennepin County	Minnesota			Mother of Bernadette, Evelyn.
			Hennepin County	Minnesota			Richard (father of Bernadette). Taken in Northeast Minneapolis.
		Kimball	Hennepin County	Minnesota			Evelyn standing with her birthday cake.
		Minneapolis	Hennepin County	Minnesota			Cousins of Evelyn in front of old car.
		Minneapolis	Hennepin County	Minnesota			Evelyn in front of a residence in Minneapolis, Minnesota
		Minneapolis	Hennepin County	Minnesota			Evelyn Botoshe holding her niece Susan.

Collecting Metadata

Role play:

Lizzy asks Greta to describe her item. Greta tells Lizzy about who took the picture, where, when, and so on.



Mock Event: Scanning Station

Mock Event: Scanning Station

- Before scanning, estimate size



Mock Event: Scanning Station

Refer to our cheat sheet

2" x 2" – 1500 dpi

3" x 5" – 600 dpi

4" x 6" and 5" x 7" – 450 dpi

8" x 10" – 300 dpi

Scanning:

Once all the equipment is connected and turned on, open Photoshop from the laptop's toolbar.

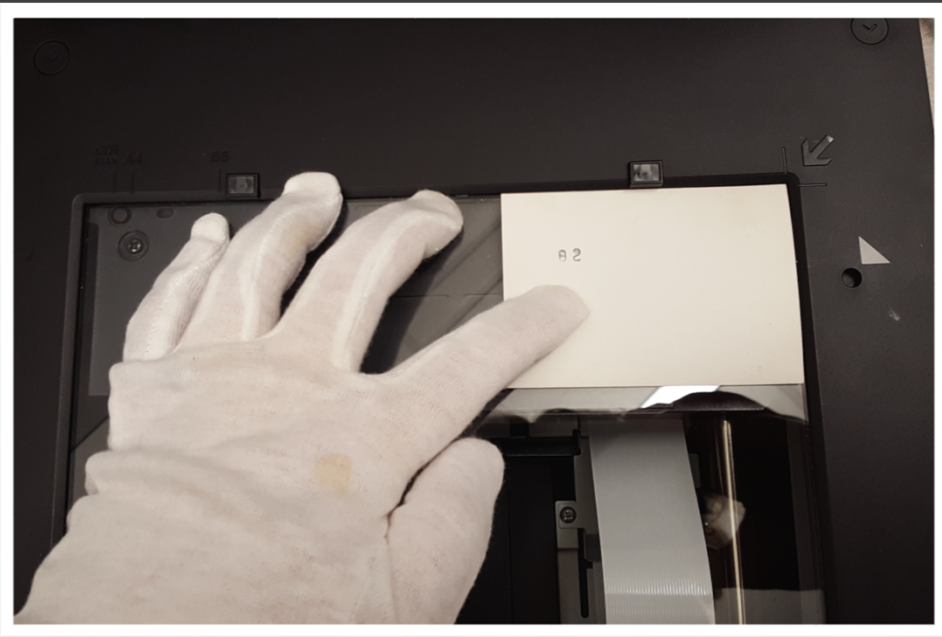
1. **Format:**

- a. Examine the item to determine the appropriate scanning approach. Documents, photographs and other opaque images are scanned straight on the scanner bed, slides and negatives require additional tools (go to Step 3).

2. **Scanning Photos or Documents:**

- a. Position the print photograph or document in the upper right corner of the scanning bed, facedown and as straight as possible.
- b. Close the scanner cover.
- c. In Photoshop, go to the File menu, choose Import, then select "Epson Perfection V800/V850."
- d. Examine the item to choose the appropriate settings.
- e. In the Epson Scan window, check that **Mode** is set to "Professional."
- f. From the "Settings" menu choose the preset option that is closest to your item:
 - i. Document 8.5"x11"
 - ii. Slides
 - iii. Color negatives
 - iv. B & W negatives
 - v. Image 2"x2"
 - vi. Image 3"x5"
 - vii. Image 4"x6"
 - viii. Image 5"x7"
 - ix. Image 8"x10"
- g. In the EpsonScan control box, click the "Preview" button.
- h. In the Preview box, use the mouse to drag the scanning frame to the desired size. You want to capture the entire object, but not the scanning bed.
- i. Examine the preview. If it needs to be straightened, adjust the item and click "Preview" again. You can use the Epson controls to rotate the image if necessary.

Mock Event: Scanning Station

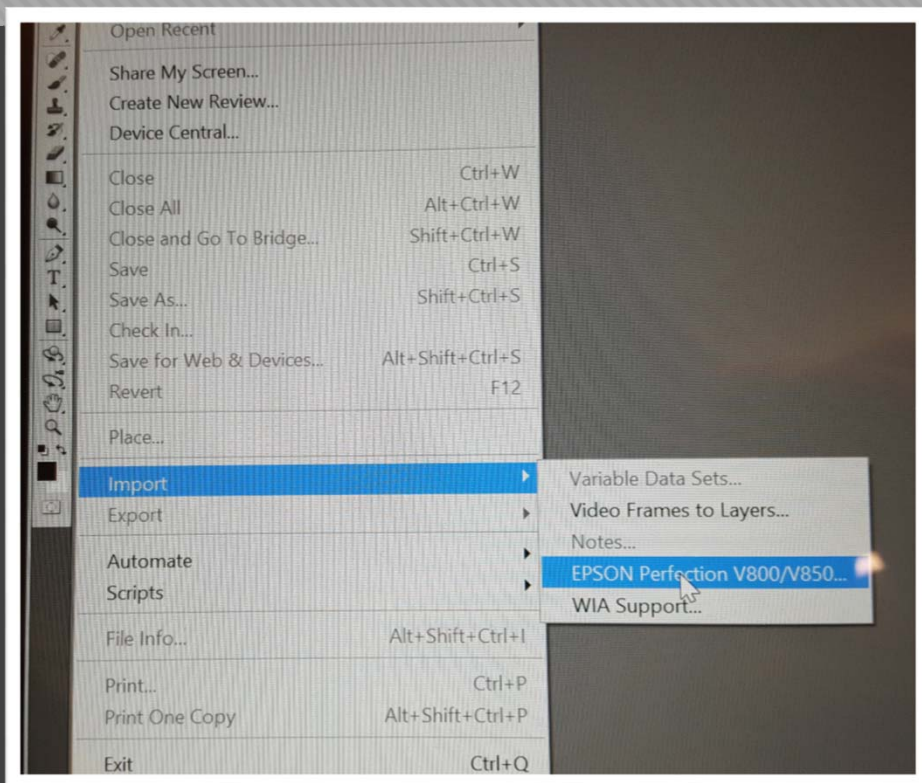


Position the photograph

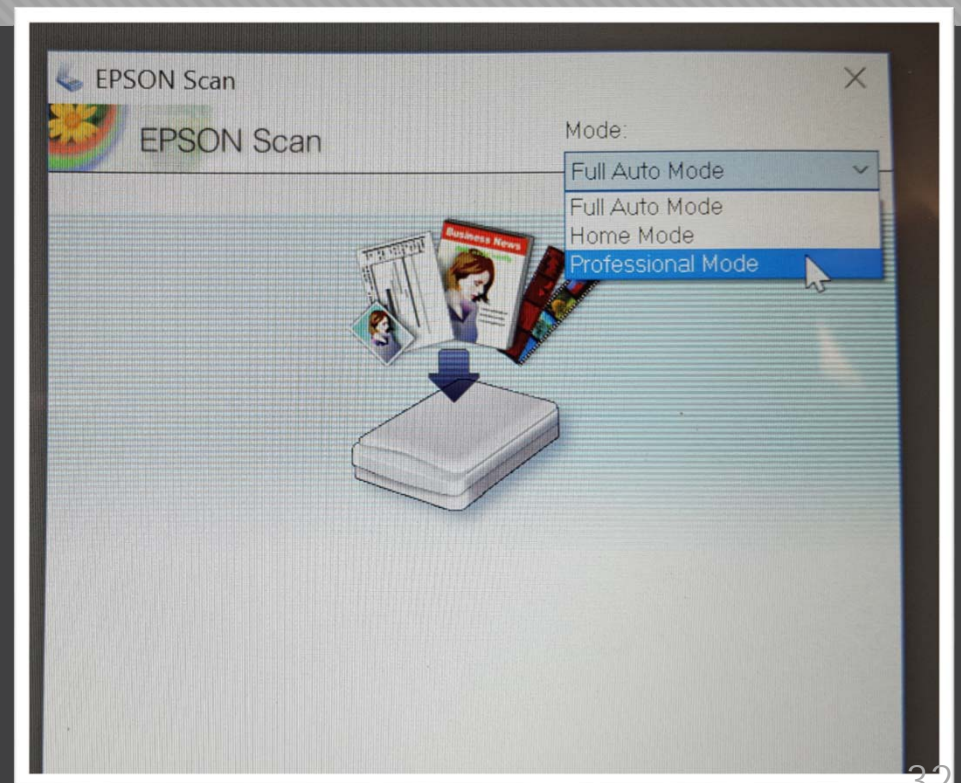


Close lid

Mock Event: Scanning Station

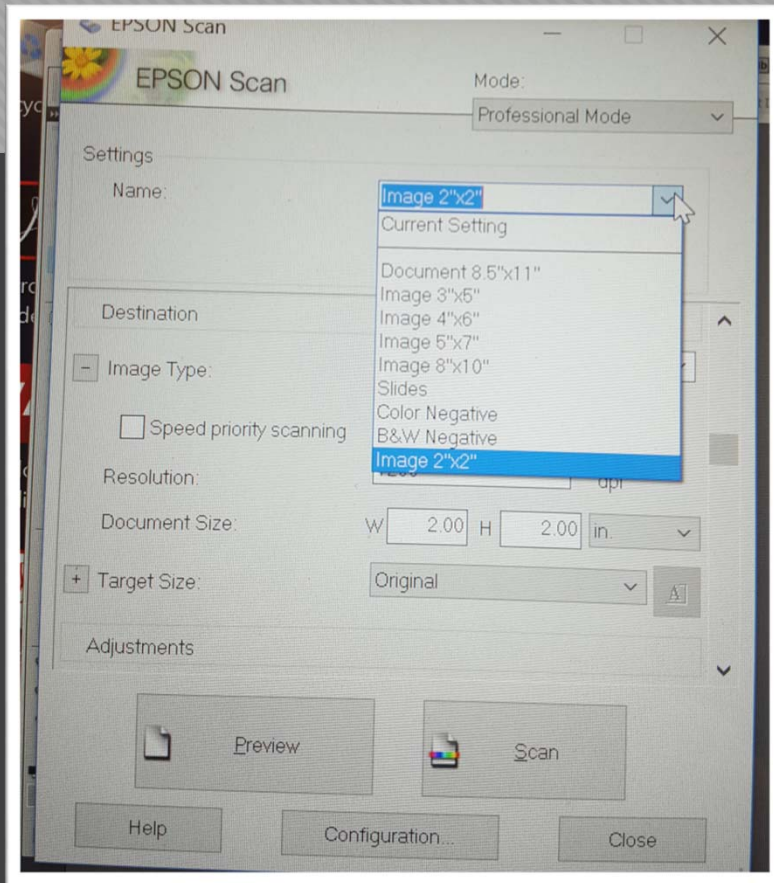


Open Photoshop, connect to scanner

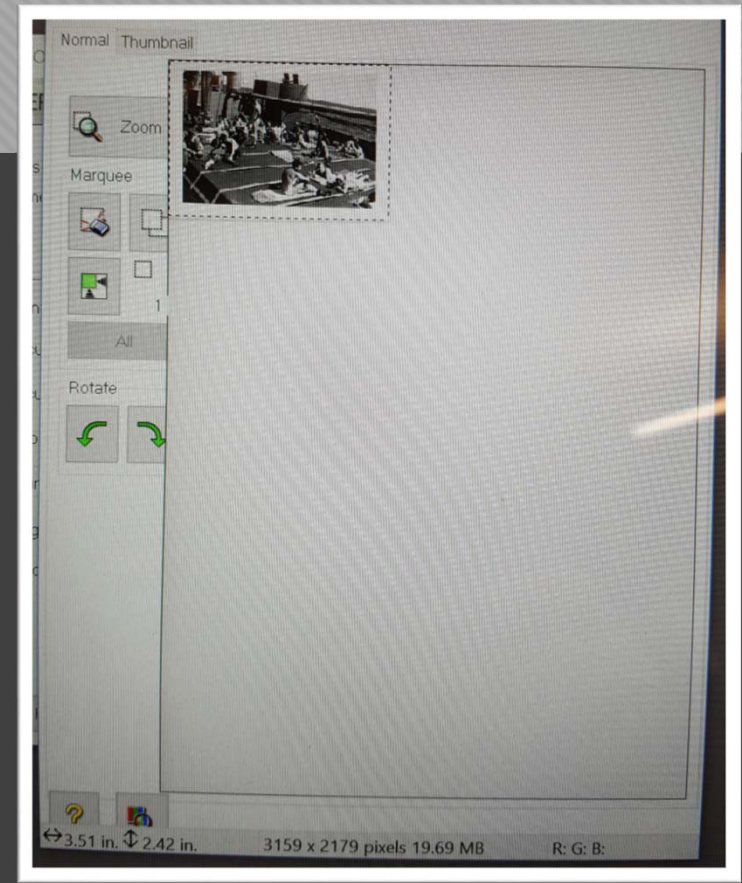


Choose "Professional Mode" in Epson window

Mock Event: Scanning Station

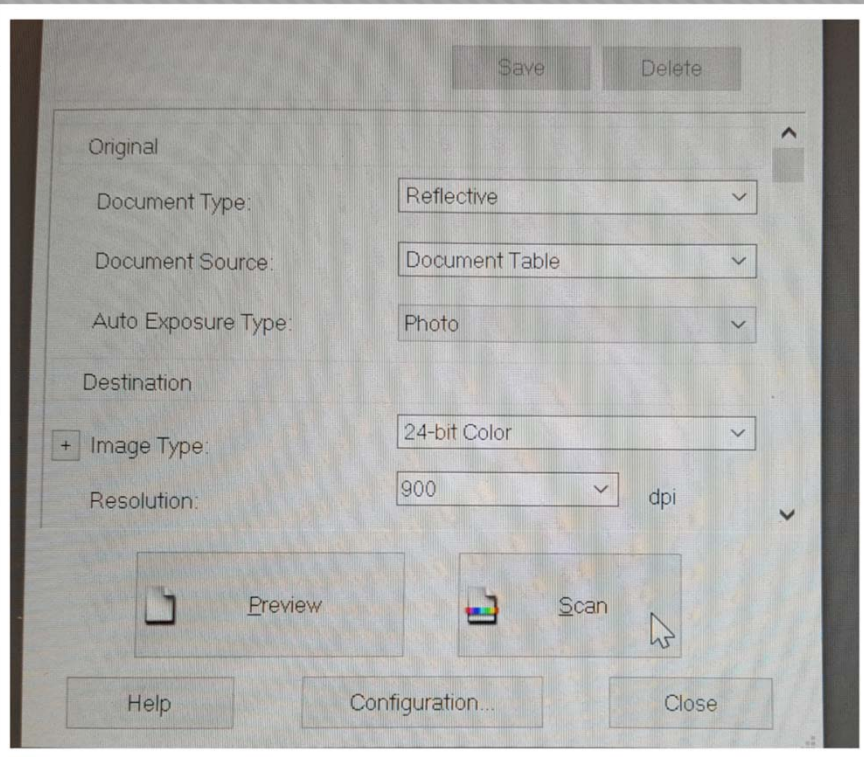


Choose photo/doc dimensions, select "Preview"



Is it at least 3000 pixels on the longest side?

Mock Event: Scanning Station

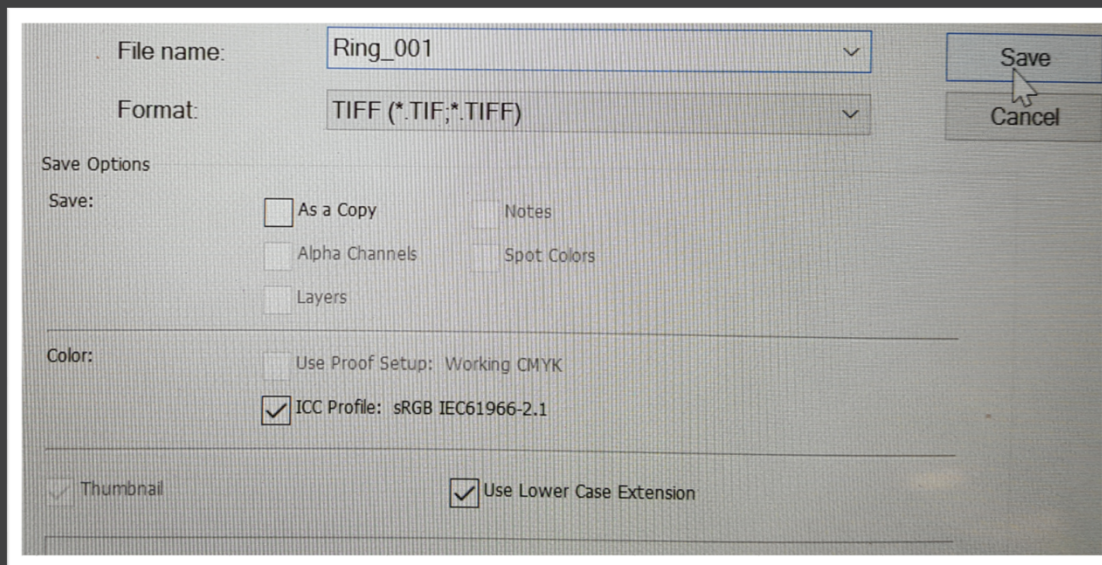


Scan if meets 3000 pixel minimum



Edit if needed (rotate, crop, etc)

Mock Event: Scanning Station



A screenshot of a file save dialog box. The 'File name' field contains 'Ring_001' and the 'Format' dropdown is set to 'TIFF (*.TIF;*.TIFF)'. The 'Save' button is highlighted with a mouse cursor. Below these are 'Save Options' including checkboxes for 'As a Copy', 'Alpha Channels', 'Layers', 'Notes', and 'Spot Colors'. The 'Color' section has 'Use Proof Setup: Working CMYK' unchecked and 'ICC Profile: sRGB IEC61966-2.1' checked. At the bottom, 'Thumbnail' and 'Use Lower Case Extension' are both checked.

File name: Ring_001

Format: TIFF (*.TIF;*.TIFF)

Save Options

Save:

- ☐ As a Copy
- ☐ Alpha Channels
- ☐ Layers
- ☐ Notes
- ☐ Spot Colors

Color:

- ☐ Use Proof Setup: Working CMYK
- ☒ ICC Profile: sRGB IEC61966-2.1

☒ Thumbnail ☒ Use Lower Case Extension

Save

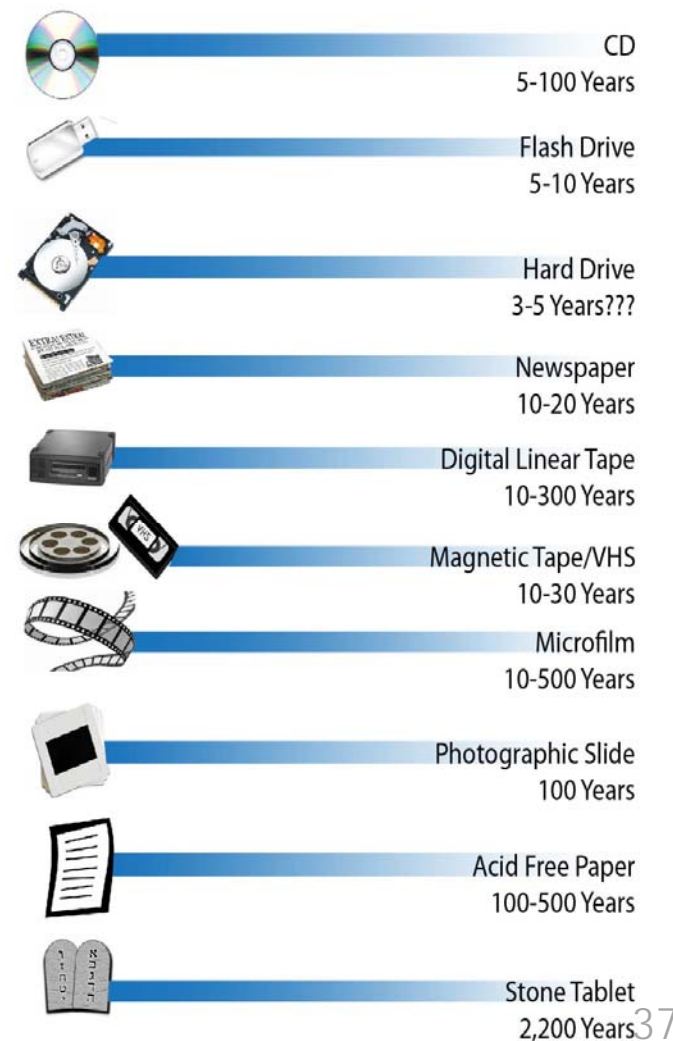
Cancel

- Save as TIFF and JPEG



Digital Preservation 101

Digitization
≠
Preservation



Graphic based on <http://www.caps-project.org/cache/DigitalMediaLifeExpectancyAndCare.html>

Digital Preservation 101

PRESERVATION TIPS

for your photographs, documents and digital content



MDL
MINNESOTA
DIGITAL LIBRARY
mndigital.org

INTRODUCTION

Take action now to preserve your family memories.

Starting a project to organize and preserve your family photographs and other content can be daunting. This brochure contains a few introductory tips to help you preserve your *physical* photographs and documents. Visit the following website for more information and resources to get you started! z.umn.edu/treasures

Are you thinking about or have you already started a project to scan or digitize your family photographs and documents? Digital content is fragile and also needs care. Software and hardware used to read files can become obsolete, and the media that we store our digital content on (computers, flash drives, cd-roms) has a limited lifespan. Take a look at the steps listed on the back of the brochure to help you preserve your *digital* content far into the future.

More Resources

Preserving Your Digital Memories
z.umn.edu/1a22

Provides tips for preserving email, digital photographs, audio, video, personal digital records, and websites.

Library of Congress Personal Digital Archiving website
z.umn.edu/1a23

Includes introductory videos and other helpful guides for home digitization projects.

The Digital Beyond
www.thedigitalbeyond.com
Regular posts about estate planning in the digital age.

TIPS FOR PRESERVING PHOTOGRAPHS AND DOCUMENTS

Temperature and humidity

- Store photographs and papers in an environment where you are comfortable. Basements can be damp and lead to mold. Attics can be too hot.
- Avoid extremes in temperature and relative humidity.

Handling

- Handle photographs and papers with clean, dry hands.
- Don't force rolled or folded items open if they resist. Contact a conservator.

Protection

- Organize photographs and papers into acid-free folders and boxes for easy access and protection from light and damage.
- Protect from direct sunlight when displaying.



Acid-free photo box



Polyester sleeves

- Look for acid-free products.
- Store photographs in albums with acid free pages or polyester, polypropylene or polyethylene sleeves.
- Mount photographs with photo corners, not glue or tape.
- If storing in boxes, keep like size items together.
- Use pencil when labeling the backs of photos.

Go to: z.umn.edu/treasures for additional information on protecting your keepsakes.

TIPS FOR PRESERVING DIGITAL CONTENT

Identify

- Download files from email and social media (e.g. Facebook).
- Transfer files off of your camera, memory cards, CDs, or wherever they may be, to one location (such as your computer).



Select & Organize

- Do you really need to keep 50 photos of your cat? Select which digital files you want to keep forever, and delete the rest.



- If there are multiple versions of an important photo, pick the one with the highest quality.
- Consider discarding drafts and only keeping the final versions of documents.
- Organize your files. There is no one recommended system for organizing files; choose one that works for you.
- You could keep all your photographs in one folder, or create separate folders for each year, each month, or organize by subject.

- Be consistent in how you name folders and files. Use descriptive names, and consider adding dates and keywords.
- Write a brief description of how you have organized the files and save it along with the files.

Store & Protect

Protect Your Digital Content From:

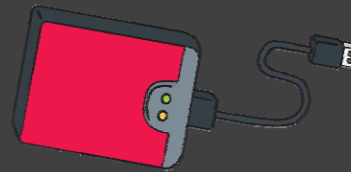
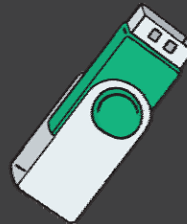


- Keep at least two copies of the files you want to save (more copies are better).
- Store a second copy in a different geographic location if possible. For example, store your digital content on your computer at your home, and back up the content to a second external storage device that you keep at another family member's house.
- Alternatively, you could store your second copy using a cloud storage service.
- Move your digital content to a new storage device every five years.

Minitex
DEDICATION. COLLABORATION. INNOVATION.

Digital Preservation 101 - Identify

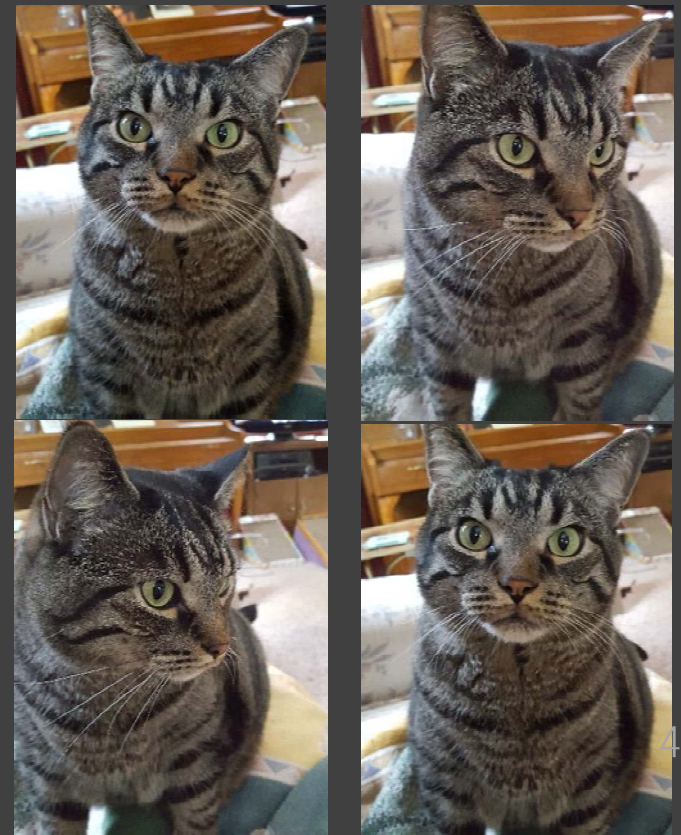
- Locate flash drives or other external hard drives, CDs, phones, camera memory cards



- Download files from email and social media that you wish to keep
- Transfer files off of your devices to one location, ideally your computer

Digital Preservation 101 - Select

- Make choices on what to keep
- Remove duplicates or near duplicates
- Remove images that are out of focus
- Remove poor images
- Keep if only image of important person / event

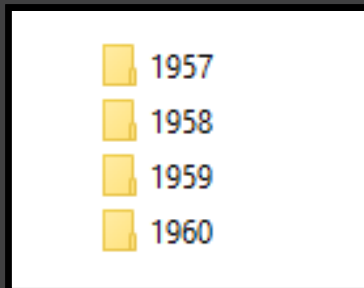


Digital Preservation 101 - Organize

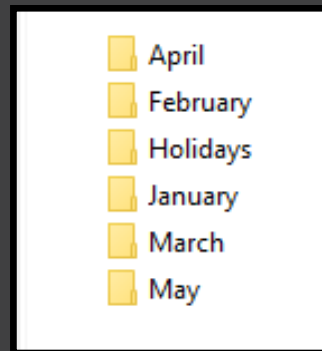
Folder Organization

- o No one system for organizing your files, choose one that works for you, and be consistent

By Year



By Year and Month



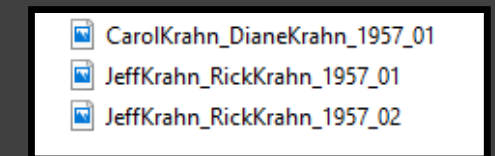
By Subject



- o Write a description of how files have been organized and save it in the same folder with the files

Digital Preservation 101 – Organize (Cont.)

- Rename files with descriptive names
 - Use names and dates
- Be aware of sorting order
 - Year vs. month, alphabetical?
- Avoid spaces, punctuation or symbols
 - # \$ % ! . * " "
 - Use camel case, hyphens, and underscores instead



Digital Preservation 101 - Metadata

Who?

James Krahn; Delores Krahn

What?

World War II

Where?

Eau Claire, Wisconsin

When?

1939-1945



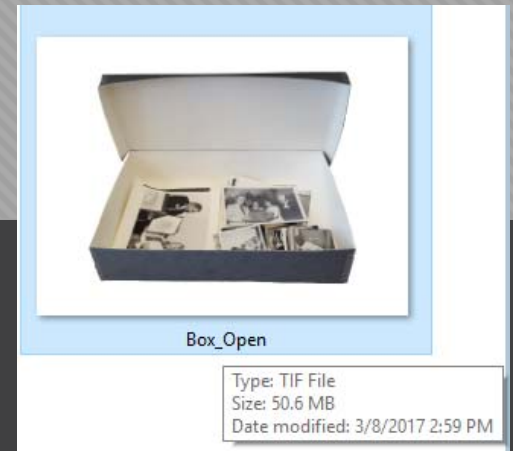
Digital Preservation 101 - Store

Characteristics of good preservation file formats

- Public and open documentation
- Non-proprietary
- Widespread adoption
- Can be opened, read, and accessed using readily-available tools

Use Cases

- TIFF vs JPEG
- Microsoft Word (.doc, .docx) → PDF (.pdf)



Digital Preservation 101 – Store & Protect

- Back Up your Files
 - 3-2-1 Rule: Three copies, stored on two different media, and one copy located off-site
 - Copy 1: stored on your computer
 - Copy 2: stored on CD or external hard drive
 - Copy 3: stored in Google Drive/Dropbox or through some other cloud storage service
- Move your digital content to a new storage device every five years

Summary

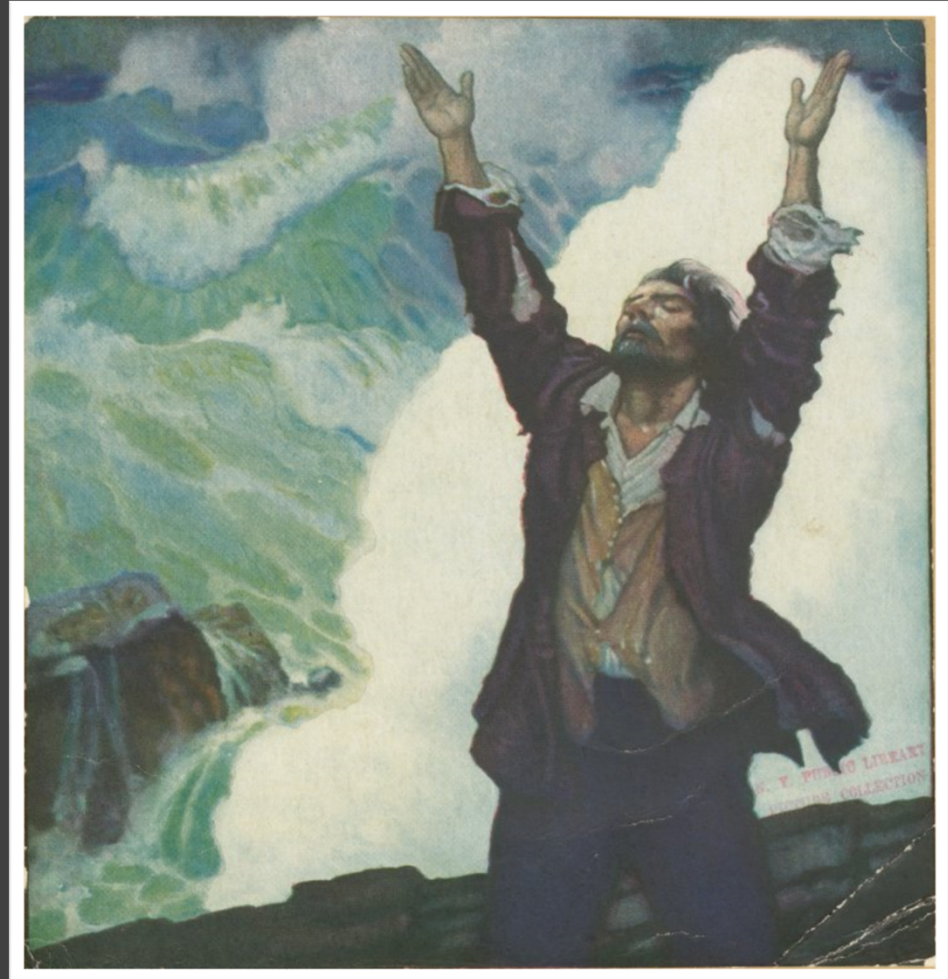
- **Planning** – Collaborations and promotion
- **Hosting** – Check-in
 - **Digital image basics**
- **Hosting** – Metadata
- **Hosting** – Scanning
 - **Digital preservation**

Reserve a kit today!

- Email mino@umn.edu to set up a loan for your next event.
- For more information, check out our Scan for Keeps website at mndigital.org.



Thank You!



Robinson Crusoe before an angry sea, New York Public Library, 1920
<http://digitalcollections.nypl.org/items/68dfb877-b9db-77b0-e040-e00a18060bb0>

Contact Us

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Sara Ring

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Digital Initiatives & Metadata Education

mino@umn.edu

800-462-5348

Scan for Keeps Program Website

<https://mndigital.org/projects/scan-keeps>